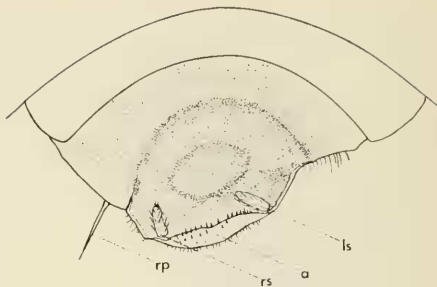




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Figs. 2-3. *Nelipophygus ashleyi*, n. sp., male: 2, dorsal aspect of left tegmen; 3, ventral aspect of subgenital plate. Abbreviations: rp, right phallomere; rs, right style; a, apical flap; ls, left style.

REFERENCES

- Gurney, A. B. 1942. Studies in Cuban Blattidae (Orthoptera). Bull. Mus. Comp. Zool. 89:12-60.
 Rehn, J. A. G. and M. Hebard. 1927. The Orthoptera of the West Indies, Number 1. Blattidae. Bull. Amer. Mus. Nat. Hist. 54:1-320.

TWO NEW SPECIES OF SPINTURNIX MITES FROM THE PACIFIC REGION

(MESOSTIGMATA: SPINTURNICIDAE)¹

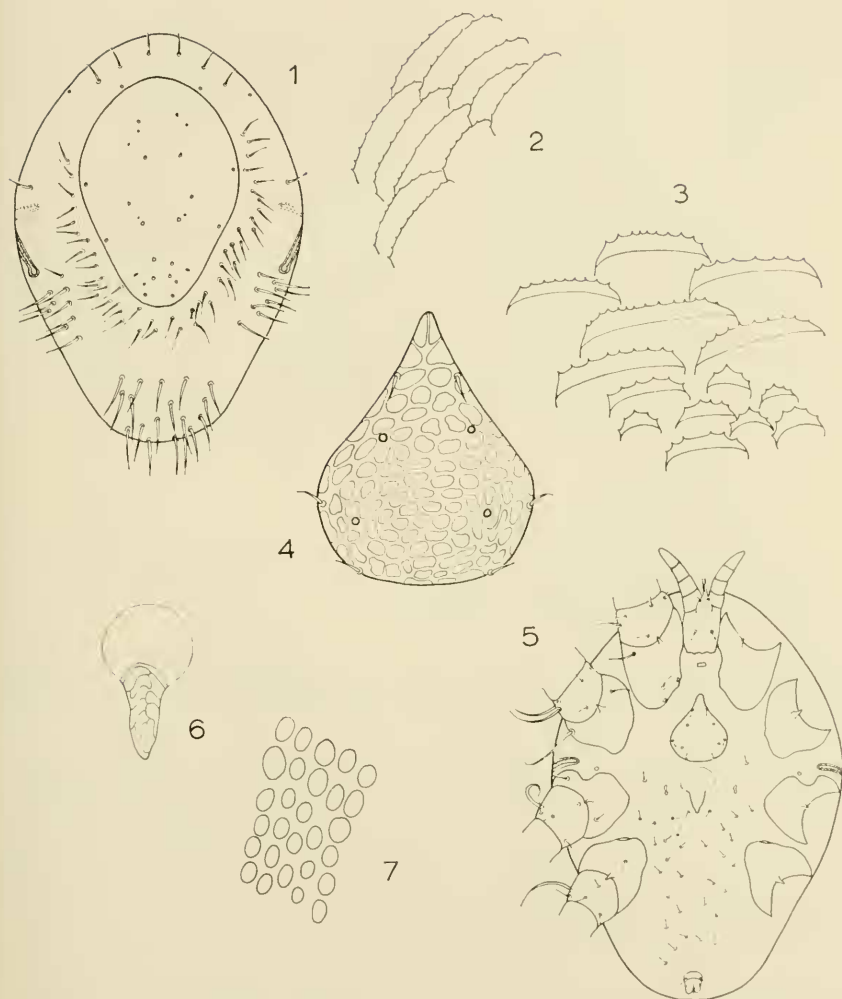
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ABSTRACT—Two new species of *Spinturnix* mites are described from the Pacific region: *S. wilsoni*, n. sp., from the bat *Myotis adversus*; and *S. queenslandicus*, n. sp., from the bat *Chalinolobus gouldii venatoris*.

The bat mites of the genus *Spinturnix* Heyden have peritremes bent ventrally between coxae II and III. The number of dorsal propodosomal setae varies from 3-5 pairs (Rudnick, 1960). There are only a few *Spinturnix* mites known that have 3 or 4 pairs of dorsal propodosomal setae. Recently, a collection of bat mites was received from B. P. Bishop Museum, Honolulu, Hawaii, for study, that contained 2 species of *Spinturnix* mites that have only 4 pairs of dorsal propodosomal setae. These are described here as new.

The length and width of idiosoma, and dorsal and ventral shields, are measured at the longest and widest points, in the middle. All the

¹ Contribution no. 253, Biology Dept., Wayne State Univ., Detroit.



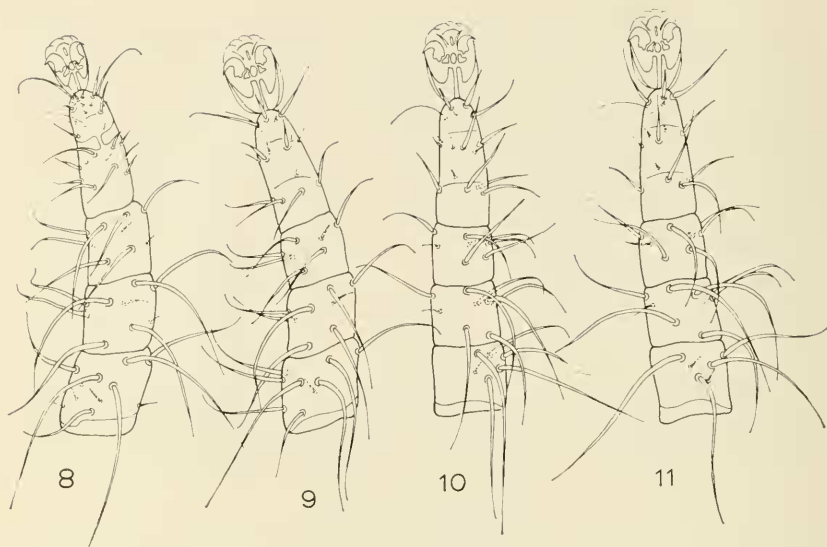
Figs. 1-7. *Spinturnix wilsoni*, n. sp., female: 1, dorsal view of body; 2, dorsal integumentation pattern in propodosoma; 3, dorsal integumentation pattern in opisthosoma; 4, sternal shield; 5, ventral view of body; 6, genital shield; 7, ventral integumentation pattern near sternal shield.

paratypes and holotypes are deposited in the collection of Acarology Department, B. P. Bishop Museum, Honolulu, Hawaii.

***Spinturnix wilsoni*, n. sp.**

(Figs. 1-15)

This species is close to *Spinturnix myoti* (Kolenati) but differs from it in that the female has only 4 pairs of dorsal propodosomal setae

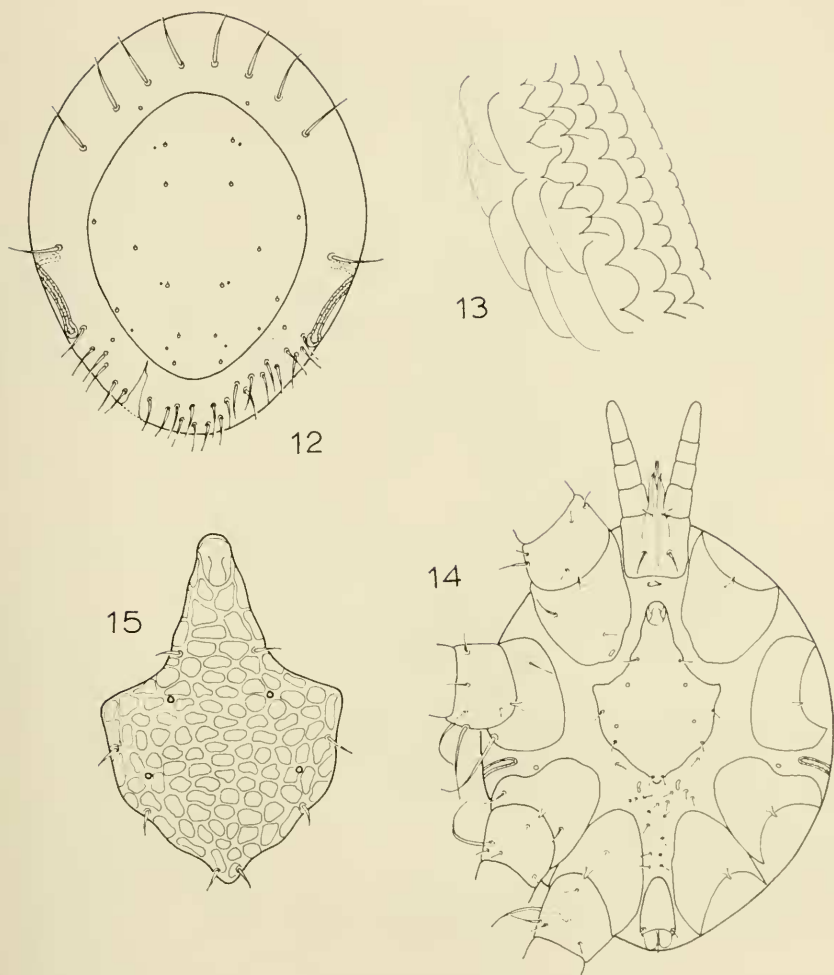


Figs. 8-11. *Spinturnix wilsoni*, n. sp., female: 8, leg I; 9, leg II; 10, leg III; 11, leg IV (all without coxa and trochanter).

anterior to the peritremes; also it has a continuous row of dorsal opisthosomal setae that extends well beyond the anterior level of the peritremes in the propodosomal region.

Female: Idiosoma ovate, 1215 μ long and 995 μ wide (holotype); podosomal shield small, extending posteriorly to the level of coxae IV, 655 μ long and 505 μ wide, with 13 pairs of pores of which at least 9 pairs with distinct minute setae; 2 pairs of pores and 4 pairs of finely serrated propodosomal setae anterior to the peritremes; 83 finely serrated dorsal opisthosomal setae of which 48 are around the podosomal shield in a row extending well beyond the anterior level of peritremes in propodosomal region, the remaining dorsal opisthosomal setae are long and in 3 separate clumps (fig. 1); dorsal integument with scalelike pattern, the scales in opisthosomal region are mixed, long and short, widely distributed, and, in comparison to propodosomal scales (fig. 2), bear long indentation (fig. 3).

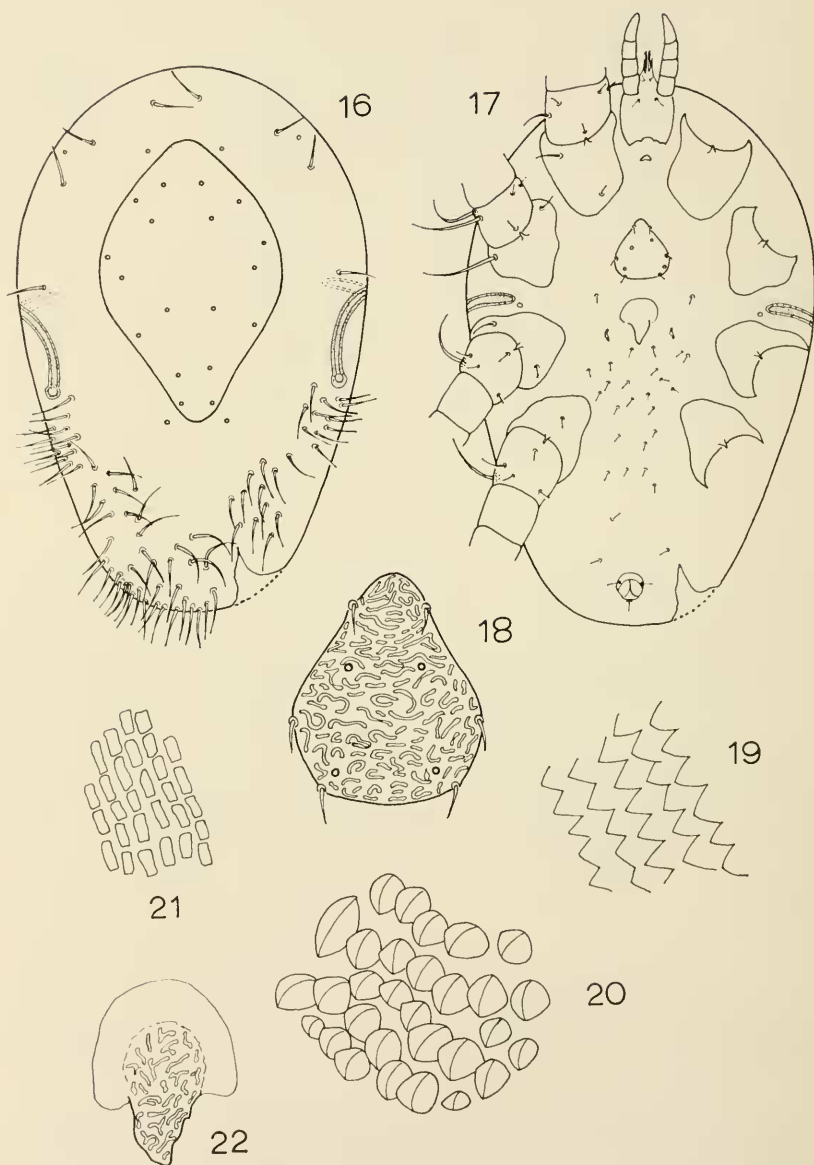
Hypostomal processes harpoon shaped, gnathosomal setae long and thick; tritosternum very small, rectangular in shape; sternal shield 206 μ long and 225 μ wide, narrow anteriorly, rounded posteriorly, with 3 pairs of small setae and 2 pairs of pores, with characteristic sculpturing pattern (fig. 4); genital shield narrow posteriorly, with sculpturing pattern (fig. 6), genital setae off the shield; remnants of metasternal shields lateral to genital shield, pair of metasternal setae postero-lateral to sternal shield; 15 pairs of small ventral setae (excluding genital setae) between genital and anal shield (fig. 5); anal shield rounded anteriorly, about as long as wide, with adanal and postanal setae; ventral integumentation pattern near sternal shield as in fig. 7; legs with very long setae (figs. 8-12), number of setae on legs (from coxa to tarsus) as follows: I—2, 5, 11, 9, 9, 30; II—2, 5, 9, 8, 7, 16; III—2, 5, 6, 8, 7, 16; IV—1, 5, 6, 8, 7, 16.



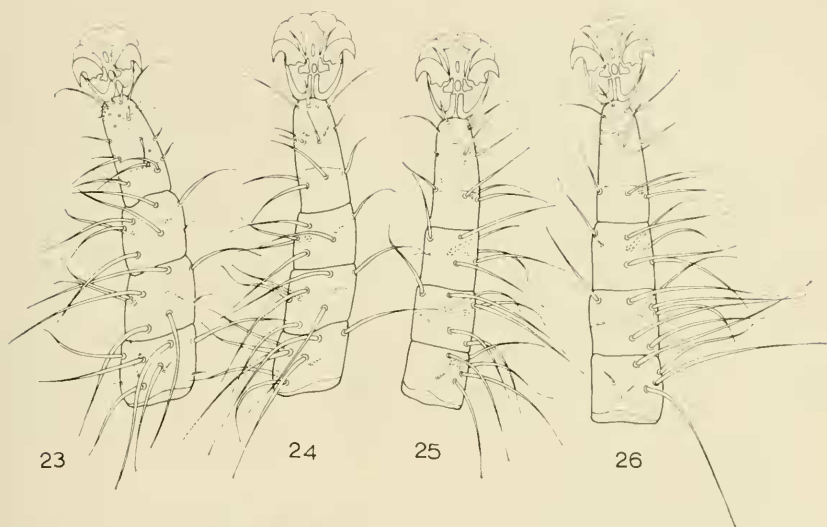
Figs. 12–15. *Spinturnix wilsoni*, n. sp., male: 12, dorsal view of body; 13, dorsal integumentation pattern in propodosoma; 14, ventral view of body; 15, sternal shield.

Remarks: Although 1 pair of pores is present between the 3rd and 4th pair of dorsal propodosomal setae, they are not the basal pores of any broken setae.

Male: Idiosoma ovate, 810–920 μ long and 735–795 μ wide (4 specimens); dorsal propodosomal integumentation with simple longitudinal striations to conical and elongate scalelike pattern proximally (fig. 13), podosomal shield 570–605 μ long and 455–490 μ wide, with 11–12 pairs of pores of which at least 8 pairs with minute setae; 1 pair of pores and 5 pairs of finely serrated dorsal propodosomal



Figs. 16-22. *Spinturnix queenslandicus*, n. sp., female: 16, dorsal view of body; 17, ventral view of body; 18, sternal shield; 19, dorsal integumentation pattern in propodosoma; 20, dorsal integumentation pattern in opisthosoma; 21, ventral integumentation pattern near sternal shield; 22, genital shield.



Figs. 23–26. *Spinturnix queenslandicus*, n. sp., female: 23, leg I; 24, leg II; 25, leg III; 26, leg IV (all without coxa and trochanter).

setae anterior to the peritremes; 1 pair of pores and 12 pairs of serrated dorsal opisthosomal setae, shorter than dorsal propodosomal setae, posterior to the peritremes; 1 pair of setae lateral to stigmata (fig. 12).

Tritosternum narrow, more than two times longer than wide; sternal shield 327–332 μ long and 251–256 μ wide, enclosing posterior portion of genital pore anteriorly, extending posteriorly to middle level of coxa III, with 3 pairs of setae and 2 pairs of pores, and with characteristic sculpturing pattern (fig. 15); remnants of metasternal shields small, elongate, close to posterior margin of sternal shield on integument, pair of metasternal setae anterior to metasternal shields on integument; 8–9 pairs of setae between posterior margin of sternal shield and anterior margin of anal shield (fig. 14); anal shield elongate, rounded anteriorly, with adanal and postanal setae; hypostomal processes with harpoon-shaped tips, chelicera with multi dentate chela; number of setae on legs as in female except tarsus I with 26 setae.

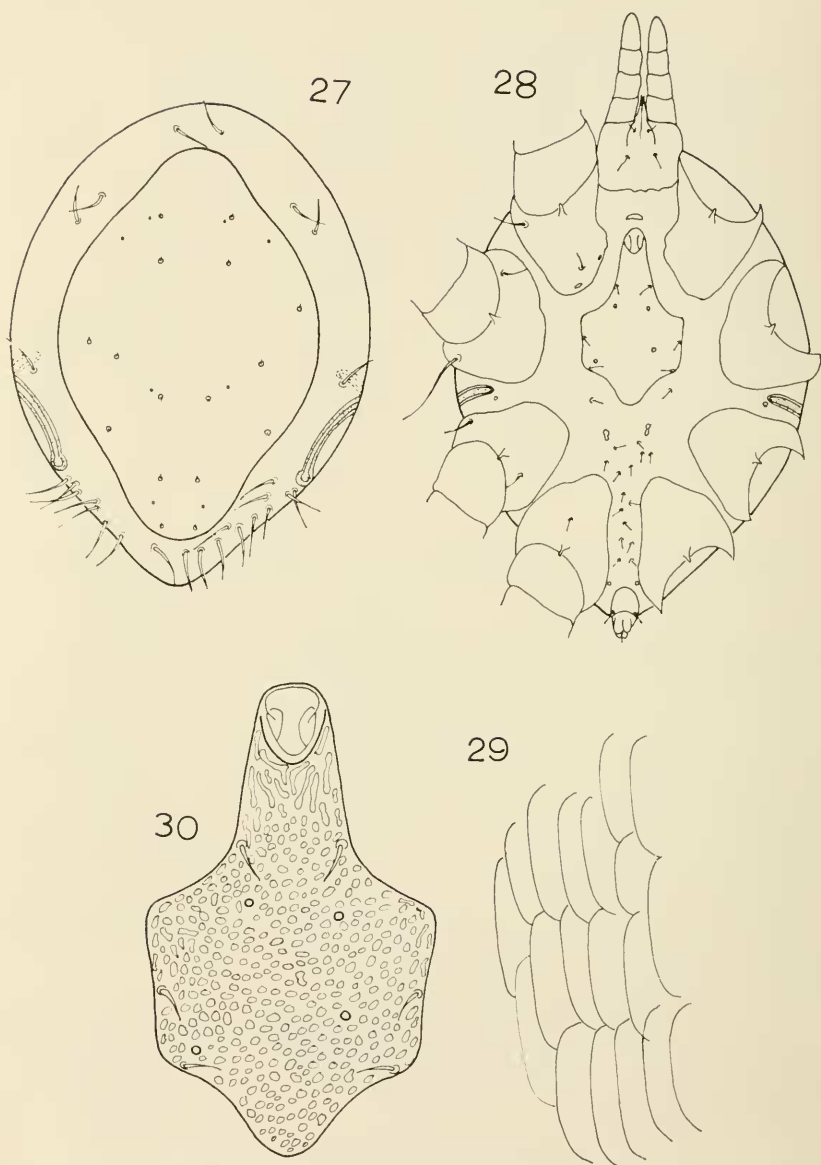
Types: Holotype female and 4 paratype males, New Guinea, Limestone Cave, Putei, Papua, Mar. 14, 1966, from *Myotis adversus*.

This species is named after Dr. Nixon Wilson, B. P. Bishop Museum, Honolulu, Hawaii.

***Spinturnix queenslandicus*, n. sp.**

(Figs. 16–30)

This species is close to *Spinturnix plecotinus* (Koch) but differs from it in that the females of *S. queenslandicus*, n. sp., have over 30 pairs of dorsal opisthosomal setae, the male has 4 pairs of dorsal propodosomal setae anterior to the peritremes, and the sternal shield in the male is different in shape.



Figs. 27-30. *Spinturnix queenslandicus*, n. sp., male: 27, dorsal view of body; 28, ventral view of body; 29, dorsal integumentation pattern in propodosoma and opisthosoma; 30, sternal shield.

Female: Idiosoma broadly ovate, 1335-1355 μ long and 930-935 μ wide (2 specimens); dorsal integument with triangular scalelike pattern in propodosomal (fig. 19) and oval scalelike pattern in opisthosoma (fig. 20); podosomal shield

small, extending posteriorly to level of coxae IV, 675–685 μ long and 465–470 μ wide, with 12 pairs of pores many of which contain minute setae; 2 pairs of pores and 4 pairs of finely serrated dorsal propodosomal setae anterior to the peritremes; 1–2 pairs of pores and 31–35 pairs of finely serrated dorsal setae posterior to stigmata in opisthosomal region (fig. 16).

Hypostomal processes harpoon shaped anteriorly, chelicera with dentate chela; tritosternum small; sternal shield 149–197 μ long and 142–175 μ wide, with 3 pairs of small setae and 2 pairs of pores, with characteristic sculpturing pattern (fig. 18); genital shield narrow posteriorly, with sculpturing pattern (fig. 22), genital setae on integument posterior to genital shield; remnants of metasternal shields lateral to genital shield, metasternal setae posterolateral to sternal shield on integument; 12 pairs of ventral opisthosomal setae between genital shield and anal shield (fig. 17); anal shield about as long as wide or little longer, with adanal and postanal setae; ventral integumental pattern near sternal shield as in fig. 21; legs with very long setae (figs. 23–26), number of setae on legs (from coxa to tarsus) as follows: I—2, 5, 11, 9, 9, 29–30; II—2, 5, 9, 8, 7, 16; III—2, 5, 6, 8, 7, 16; IV—1, 5, 6, 8, 7, 16.

Remarks: Although a pair of pores is present behind the 2nd and 3rd pair of dorsal propodosomal setae, they are not the basal pores of any broken setae.

Male: Idiosoma ovate, 855 μ long and 695 μ wide (1 specimen), narrow posteriorly; dorsal propodosomal and opisthosomal integument with elongate scale-like pattern (fig. 29); podosomal shield 650 μ long and 510 μ wide, covering most of opisthosoma, with 12 pairs of pores of which at least 8 pairs with minute setae; 4 pairs of finely serrated dorsal propodosomal setae anterior to peritremes; 19 serrated dorsal opisthosomal setae posterior to stigmata (fig. 27).

Hypostomal processes harpoon shaped anteriorly, chelicera with multi-dentate chela; tritosternum small, rounded anteriorly; sternal shield narrow posteriorly, extending to middle level of coxae III, octagonal in shape, 303 μ long and 199 μ wide, enclosing posterior portion of genital pore anteriorly, with 2 pairs of pores and 3 pairs of setae, with characteristic sculpturing pattern (fig. 30); remnants of metasternal shields posterior to sternal shield, metasternal setae posterolateral to sternal shield on integument; 15 ventral opisthosomal setae and 1 pair of pores between sternal shield and anal shield; anal shield longer than wide, with adanal and postanal setae (fig. 28); striation pattern on ventral integument as in female; number of setae on legs as in female except tarsus I with 27 setae.

Types: Holotype female, 2 paratype male and female, 1 nymph, Border Waterhole, N.T., North of Camooweal, Queensland, Aug. 30, 1967, from *Chalinolobus gouldii venatoris*.

ACKNOWLEDGMENTS

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REFERENCE

- Rudnick, A. 1962. A revision of the mites of the family Spinturnicidae (Acarina). Univ. Calif. Publ. Ent. 17(2): 157–284.